

Proposed Solution [POC] Overview



Using Generative Al-Powered Approach can be effectively applied to simplify and enhance the client's document analysis processes, providing value through innovative technology.

Model Training



- ➤ The scope involves manual methods to use of the 12 documents and performing preprocessing techniques.
- > Then utilize Natural Language Processing (NLP) techniques to train a model on existing documents.
- Incorporate multimodal AI to process text, diagrams, and tables.

Generative AI



- Use fine-tuned large language model (LLM) to:
 - Generate summaries for technical documents.
 - Create explanations for complex machinery concepts.
- > Enable context-aware responses to queries using custom prompts.
- Enable users to securely access industrial documentation over a mobile/web application.



POC UI & Backend Features





- **Backend Powered by Azure Al Services**
- Pre-stored Training Materials
- Document Upload and Knowledge Base Expansion
- Versatile Content Retrieval
- Intelligent Answer Generation
- Source Referencing for Answers
- Prompt Engineering for Clean, Structured Answers
- Automated Response Cleaning for Improved Readability



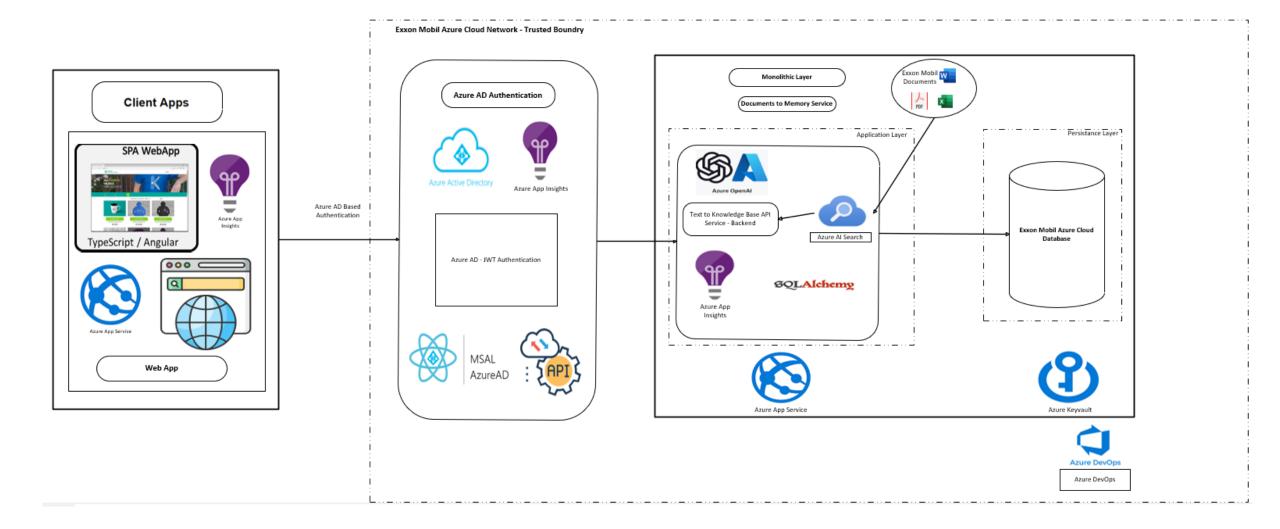
- Start New Chat
- Auto-Generated Chat Names
- Export Individual Messages
- Export Entire Chats
- Response Rating
- Feedback on Responses
- Response Regeneration
- Chat Invites
- Invite Notifications
- Dark Mode
- Chat Search





Solution Architecture









Technology Stack for Implementation

Al Models

Inbuilt (e.g., prebuild.document and/or Custom model { customModelName }. GPT (Generative Pre-trained Transformer)

03

Data Processing

OCR tools, Azure Document Intelligence, Search Index Services

Interfaces

04

Custom-built User Interface using HTML, CSS, JavaScript, Angular, TypeScript

For backend interface – FAST API's built using Python

Cloud Native Services

App Services, ADLS Gen2, Azure Al Services, Azure Document Intelligence, Al Search Index, Azure Blob Storage or other cloud services.



02



Deployment Azure Cloud Peor

Azure Cloud People tech Tenant



Template: High Level Timelines and Deliverables



Discovery & Analysis	Architecture & Design	Execution	Stabilize	UAT/Go-Live	Post Go-Live support
Assessment and Planning	Environment Setup and PoC	Docu Search Modernization	Optimization and Testing	Cutover and Go- Live	Post-Migration Review and Optimization
 Identify stakeholders Understand current env workloads Identify document assets Identify Functional and performance requirements Prepare and review architecture & design Develop overall strategy and execution plan Develop communication plan 	 Identify CiCd guidelines and best practices Setup Azure AI services environment (Dev) Configure AI components Configure security & permissions Prepare test strategy & Plan Execute POC & verify poc acceptance criteria 	 Phase wise docu analysis kickoff Execute sprint deliverables & Show tells Unit testing Prepare test cases & execution Component wise testing Integration testing Multiple iterations 	 Optimize components and assets Security & Governance Validation Full Load Testing Cost Optimization Bug fixing 	 Cutover communication to stakeholders Cutover component/assets execution to new production environment Post go-live support 	➤ Triage bugs; Park enhancements to PBL
Deliverables	Deliverables	Deliverables	Deliverables	Deliverables	Deliverables
 Asset inventory document Product backlog Technical design document Overall execution plan Identify team and initiate onboarding 	 Setup Dev/QA environment Architecture & design reviews Backlog with functional & non-functional stories Demo of agreed upon POC Initial performance report Updated technical document & Test Plan 	 QA and sign-off Weekly status reports Daily scrum reports Sprint wise retro report 	 Test results pre/post optimization Cost optimization recommendations Cutover & rollback plan Setup UAT environment 	 Updated project documentation UAT results 	 Retro notes; PBL Project closure report Handover project documentation Long term support & maintenance



